CLAIMS

1. (Original) A color measurement instrument comprising:

illuminator means for illuminating a sample;

color measurement means for measuring light reflected from said sample;

temperature changing means for changing the temperature of said illuminator means;

temperature sensing means for sensing the temperature of said illuminator means; and

control means responsive to said temperature sensing means for controlling said temperature changing means to control the temperature of said illuminator means.

2. (Original) A color measurement instrument as defined in claim 1 wherein said illuminator means includes a light emitting diode (LED).

3. (Original) A color measurement instrument as defined in claim 1 wherein said illuminator means includes an illuminator and a thermally conductive base supporting said illuminator.

4. (Original) A color measurement instrument as defined in claim 3 wherein said temperature changing means and said temperature sensing means are mounted on said base.

5. (Original) A color measurement instrument comprising:

an illuminator;

a color measurement engine; and

control means for actively controlling the temperature of said illuminator.

6. (Original) A color measurement instrument as defined in claim 5 wherein said illuminator includes a light emitting diode (LED).

7. (Original) A color measurement instrument as defined in claim 5 wherein aid illuminator further includes a thermally conductive base, said control means coupled to said base.

8. (Original) A color measurement instrument as defined in claim 7 wherein said control means includes:

a temperature sensing element supported by said base; and

a temperature changing element supported by said base.

9. (Original) A method of measuring color comprising the steps of:

illuminating a sample with at least one illuminator;

measuring light reflected from the sample; and

controlling the temperature of the at least one illuminator to enhance the uniformity of at least one output characteristic.

10. (Original) A method as defined in claim 9 wherein:

the at least one illuminator comprises a light emitting diode (LED); and

the at least one output characteristic includes intensity, spectral energy distribution, and spatial distribution of the light from the LED.

11. (Original) A method as defined in claim 9 wherein said controlling step includes:

measuring the temperature of the illuminator;

comparing the temperature of the illuminator with a desired temperature; and

applying heating or cooling to the illuminator depending on said comparing step.

Claims 12-20 (Canceled).